

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Blumenthal et al.  
Serial No.: Unknown  
Filed: Unknown  
For: Systems and Methods for Controlling the Activity of Carbon in Heat Treating Atmospheres

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL OF INFORMATION DISCLOSURE STATEMENT WITHIN  
THREE MONTHS OF FILING OR BEFORE MAILING OF FIRST OFFICE ACTION  
(37 CFR 1.97(b))

NOTE: "An information disclosure statement shall be considered by the Office if filed: (1) within three months of the filing date of a national application; (2) within three months of the date of entry of the national stage as set forth in S 1.491 in an international application; or (3) before the mailing date of a first Office action on the merits, whichever event occurs last." 37 CFR 1.97(b).

NOTE: The "filing date of a national application" under 37 CFR 1.97(b) has two possible meanings. Where the filing is a direct one to the United States Patent & Trademark Office, the filing is defined in 37 CFR 1.53(b) as "the date on which: (1) A specification containing a description pursuant to S 1.71 and at least one claim pursuant to S 1.75; and (2) any drawing required by S 1.81(a), are filed in the Patent and Trademark Office in the name of the actual inventor or inventors as required by S 1.41." 37 CFR 1.97(b)(1). On the other hand, an international application that enters the national stage occurs when the applicant has filed the documents and fees required by 35 U.S.C. S 371(c) within the periods set forth in S 1.494 or S 1.495. 35 U.S.C. S 371(c) requires the filing of the following: (1) the national fee; (2) a copy of the international application, unless already sent by the International Bureau, and an English translation if filed in another language; (3) amendments under PCT Article 19, with a translation into English if made in another language; (4) an oath or declaration; and (5) a translation into English of any annexes to the international preliminary examination report, if such annexes were made in another language. 37 CFR 1.97(b)(2).

IDENTIFICATION OF TIME OF FILING THE ACCOMPANYING INFORMATION  
DISCLOSURE STATEMENT

The information disclosure statement submitted herewith is being filed WITHIN THREE MONTHS OF THE FILING DATE OF THE APPLICATION OR DATE OF ENTRY INTO THE NATIONAL STAGE OF AN INTERNATIONAL APPLICATION OR BEFORE THE MAILING DATE OF A FIRST OFFICE ACTION ON THE MERITS, WHICHEVER EVENT OCCURS LAST. 37 CFR 1.97(b).

NOTE "NO CERTIFICATION OR FEE IS DUE WHEN THE FILING IS MADE WITHIN THE ABOVE TIME PERIOD. IT IS ADVISABLE TO ENSURE THAT NO OFFICE ACTION HAS BEEN MAILED IF THE DISCLOSURE STATEMENT IS DELAYED UNTIL AFTER THREE MONTHS FROM FILING.

NOTE: "An information disclosure statement will be considered to have been filed on the day it was received in the Office, or on an earlier date of a mailing if accompanied by a properly executed certificate of mailing under 37 CFR 1.8, or Express Mail certificate under 37 CFR 1.10. An Office action is mailed on the date indicated in the Office action." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

CERTIFICATE OF MAILING (37 CFR 1.10)

I hereby certify that this paper (along with any referred to as being attached or enclosed) is being deposited with the United State Postal Service on the date shown below as Express Mail Label No. EV 317558176 US in an envelope addressed as follows: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450

Judith Dunaway

Type or print name of person mailing paper

Date: 25 June 2003

(Signature of person mailing paper)

**NOTE:** "The term 'national application' includes continuing applications (continuations, divisions, continuations-in-part) so three months will be measured from the actual filing date of an application as opposed [sic] to the effective date of a continuing application." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**NOTE:** "An action on the merits means an action which treats the patentability of the claims in an application, as opposed to only formal or procedural requirements. An action on the merits would, for example, contain a rejection or indication of allowability of a claim or claims rather than just a restriction requirements (37 CFR 1.142) or just a requirement for additional fees to have a claim considered (37 CFR 1.16(d)). Thus, if an application was filed on Jan. 1 and the first Office action on the merits was not mailed until six months later on July 1, the examiner would be required to consider any proper information disclosure statement filed prior to July 1." Notice of April 20, 1992 (1138 O.G. 37-41, 39).

**WARNING:** "A PETITION FOR SUSPENSION OF ACTION TO ALLOW APPLICANT TIME TO SUBMIT AN INFORMATION DISCLOSURE STATEMENT WILL BE DENIED AS FAILING TO PRESENT GOOD AND SUFFICIENT REASONS, SINCE 37 CFR 1.97 PROVIDES ADEQUATE RECOURSE FOR THE TIMELY SUBMISSION OF PRIOR ART FOR CONSIDERATION BY THE EXAMINER." NOTICE OF JULY 6, 1992 (1141 O.G. 63).

The submission of any document herewith is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a *prima face* prior art reference against the claims of the present application.

**COPIES OF THE DOCUMENTS LISTED ON THE ATTACHED FORM PTO-1449 CAN BE FOUND IN THE FILE WRAPPER OF PARENT APPLICATION SERIAL NO. 09/252,158 FILED 18 FEBRUARY 1999 AND ARE THEREFORE NOT INCLUDED WITH THIS SUBMISSION.**

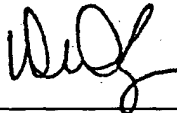
Should any fees be necessary in connection with this submission, please charge same to Account No. 06-2360.

Date 25 June 2003

Reg. No. 29,243

Telephone No.: (262) 783-1300

Customer No. 26308



\_\_\_\_\_  
Signature of Attorney of Record

**Daniel D. Ryan**

\_\_\_\_\_  
Type or Print Name of Attorney of Record

**RYAN KROMHOLZ & MANION, S.C.**

**Post Office Box 26618**

**Milwaukee, Wisconsin 53226-0618**

<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>  CUSTOMER NO. 26308	ATTY DOCKET NO. <b>1031.16081-CON</b>	SERIAL NO. <b>Unknown</b>
	APPLICANT <b>Blumenthal et al.</b>	
	FILING DATE <b>Unknown</b>	GROUP <b>Unknown</b>

### U.S. PATENT DOCUMENTS

Examiner Initial	DOCUMENT NUMBER	Date	Name	Class	Subclass	Filing Date (if Appropriate)
	4,288,062	09/1981	Gupta et al.			
	5,496,450	03/1996	Blumenthal et al.			
	5,231,645	07/1993	Uno et al.			
	5,772,428	06/1998	Van Den Sype et al.			
	4,588,493	05/1986	Blumenthal et al.			
	4,485,002	11/1984	Wunning			
	5,556,556	09/1996	Blumenthal et al.			
	4,992,113	02/1991	Baldo et al.			
	5,385,337	01/1995	Schultz			
	5,666,631	09/1997	Polizzotti et al.			
	5,393,403	02/1995	Sasabe et al.			
	5,352,344	10/1994	Gohring et al.			
	4,285,742	08/1981	Bowes et al.			
	3,844,770	10/1974	Nixon			
	5,137,616	08/1992	Poor et al.			
	5,211,820	05/1993	Poor et al.			
	4,158,166	06/1979	Isenberg			
	5,498,299	03/1996	Schmidt			

### OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			Trade Brochure Furnace Control Corporation "Lamination Annealing Control Systems", Undated
			Chen, Yong Chwang, <i>Automatic Control of the Carbon Potential of Furnace Atmospheres without Adding Eroded Gas</i> , Metallurgical Transactions, Volume 24B October 1993, pgs. 881-888
			Heat Treating Progress News "Ipsen unveils new sensor technology", Advanced Materials & Processes 10/98, pgs 128-129
			Ipsen International Inc., Advanced Materials & Processes 10/98 pgs. 122-123
			ASM Handbook Volume 4 Heating Treating Circa 1998
			Weissohn, Von K.H., <i>SauerstoffmeBzellen zum Regein Ofenatmospharen</i> , warme Gas International, Band 21 October 10, 1983, pgs. 436-437

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this of with next communication to applicant.

<b>LIST OF PRIOR ART CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>	ATTY DOCKET NO. <b>1031.16081-CON</b>	SERIAL NO. <b>Unknown</b>
	APPLICANT <b>Blumenthal et al.</b>	
	FILING DATE <b>Unknown</b>	GROUP <b>Unknown</b>
CUSTOMER NO. 26308		

### U.S. PATENT DOCUMENTS

Examiner Initial	DOCUMENT NUMBER	Date	Name	Class	Subclass	Filing Date (if Appropriate)

### OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

			Weissohn, K.H., Oxygen Partial Pressure Measurements with a Zirconium Oxide Probe, Warne Gas International, June 6, 1980, pgs. 331-342
			Sastri and Abraham, Atmosphere Control in Heat Treatment Furnaces Using Oxygen Probes, Tool & Alloy Steels, April & May 1986, pgs. 155-162
			Armson et al., Electrochemical Sensors for Heat Treatment atmosphere Monitoring, CKN Group Technological Centre, Wolverhampton England, pgs. 905-918
			Controlled Atmos. Annealing of Steel Using Oxygen Sensors to Control and Monitor Atmosphere Compan. Japanese Patent Abstract, JP 7988711 Dialog Search
			Oxygen Sensor for Annealing, Japanese Patent Abstract JP 60-9447
			Robert, Marc; Carbon Flux Method Controls N2-hydrocarbon decarb/recarb; Heat Treating/September 1990 pgs 22-24
			Stanescu, Mircea Stefan PhD.; "Principal Annealing Atmospheres for Steel Rod and Wire; pgs. 79-83
			Powers, Charles et al., "Process Control for Short Time Cycle Spheroidize Annealing"
			Apparatus for Oxygen Analysis, Japanese Patent Abstract, JP 91-330656
			Blumenthal, "Control of Endothermic Generators - A Technical Comparison of Endothermic and Nitrogen/Methanol Carrier Atmosphere; ASM International; pgs. 19-25, 1996
			Robert, Marc J.; Baldo, Pascal P.; Automatic prevention of decarburization through ALNAT FC processing; pgs 75-78

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this of with next communication to applicant.